ABSTRACT

In a fuel cell system 10, a refrigerant channel 70 that circulates refrigerant is configured to exchange heat between the refrigerant and each of a fuel cell 30, a hydrogen storage tank 20 having a hydrogen storage alloy, and a radiator 50. The hydrogen storage alloy has a higher absorption temperature at which absorption and release become equilibrium under the predetermined hydrogen pressure than the temperature of the fuel cell 30 in a steady-state operation. The refrigerant after cooling the fuel cell carries the heat generated by hydrogen absorption to the hydrogen storage alloy during storing from the tank 20 and facilitates absorption of hydrogen.